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PRE-APPEAL BRIEF REQUEST FOR REVIEW		Docket Number (Optional)	
		8054L-206T (LW7010US-1)	
I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)]	Application Number Filed		
	10/667,515		September 23, 2003
onFebruary 23, 2006	First Named Inventor		
	Choo et al.		
Signature	Art Unit Examiner		
Typed or printed Nathaniel T. Wallace			
name	1732		Tentoni, Leo B.
This request is being filed with a notice of appeal.  The review is requested for the reason(s) stated on the attached sheet(s).  Note: No more than five (5) pages may be provided.			
I am the			
applicant/inventor.			
аррисанинуенког.		Signature	
assignee of record of the entire interest.  See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.		Nathaniel T. Wallace	
(Form PTO/SB/96)	Typed or printed name		
X attorney or agent of record. 48,909	516-692-8888		
Registration number	Telephone number		
attorney or agent acting under 37 CFR 1.34.		Fahm	22 2006
Registration number if acting under 37 CFR 1.34	_ —	February 23, 2006 Date	
NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.			
*Total of forms are submitted.			

This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.



# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

**APPLICANTS:** 

Choo et al.

EXAMINER: Tentoni, Leo B.

SERIAL NO.:

10/667,515

**GROUP ART UNIT: 1732** 

FILED:

September 23, 2003 DOCKET: 8054L-206T (LW7010US-1)

FOR:

METHOD AND APPARATUS FOR CUTTING A NON-METALLIC

SUBSTRATE USING A LASER BEAM

**MAIL STOP AF** 

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

### PRE-APPEAL BRIEF REQUEST FOR REVIEW

#### Examiner:

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request. This request is being filed with a Notice of Appeal and a Pre-Appeal Brief Request For Review Form (PTO/SB/33). Applicants note that the undersigned is an attorney of record by virtue of a Revocation of Power of Attorney with New Power of Attorney filed on January 19, 2006.

## CERTIFICATE OF MAILING UNDER 37 C.F.R. §1.8(a)

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### REMARKS

Please consider the following reasons for this Pre-Appeal Brief Request For Review.

Claims 8-13 are pending and stand rejected in the above-referenced application.

Reconsideration of the rejection is respectfully requested in view of the remarks.

Claim 8 is the only pending independent claim. Only rejections pertinent to Claim 8 are addressed here.

Claim 8 has been rejected under 35 U.S.C. 102(b) as being anticipated by Chui (USPN 3,930,825). The Examiner stated essentially that Chui teaches all the limitations of Claim 8.

Claim 8 claims, "a second laser beam generating means that generates a second laser beam for propagating the crack along a scanning path of the first laser beam in a depth direction of the substrate, wherein the apparatus cuts the non-metallic substrate without a cooling device."

Chui teaches a method of producing an article of glass by cutting using a pair of focused laser beams which cut patterns in the glass having a common starting and ending point (see Abstract). Chui does not teach "a second laser beam generating means that generates a second laser beam for propagating the crack along a scanning path of the first laser beam in a depth direction of the substrate" as claimed in Claim 8. The pair of laser beams travel in separate paths to cut a pattern in the glass by cutting it out of a sheet of glass, for example, cutting two opposite 180 degree arcs to create a circle pattern (for example, see Figure 3 illustrating the two different paths of a pair of lasers). Each laser of the pair of lasers of Chui takes a separate path. Further, it is clear that either of the pair of lasers of Chui is sufficient to cut through the glass substrate – as this is an object of the Chui invention – therefore, even where the first and second lasers have a common point along their separate paths (e.g., the starting point), the first laser cuts completely through the glass and does not form a "scribe line having a crack" as claimed in Claim 8.

Therefore, Chui fails to teach "a second laser beam generating means that generates a second laser beam for propagating the crack along a scanning path of the first laser beam in a depth direction of the substrate" as claimed in Claim 8.

In view of the above, Applicant's believe there is clear error in the rejection of Claim 8 in view of Chui. Therefore, reconsideration of the rejection is respectfully requested.

Claims 8-13 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Xuan (USPN 6,744,009). The Examiner stated essentially that Xuan teaches or suggests all the limitations of Claims 8-13.

Claim 8 claims, *inter alia*, "wherein the apparatus cuts the non-metallic substrate without a cooling device."

Xuan teaches a system using a combined heating/cooling technique to scribe a substrate (see col. 3, lines 5-12 and col. 10, lines 55-59). Xuan does not teach or suggest cutting a non-metallic substrate without a cooling device, essentially as claimed in Claim 8. It is clear that Xuan's system uses a coolant source in scribing the substrate (see col. 8, lines 47-51). Nowhere does Xuan teach or suggest a system that may form a scribing line without such a coolant source. Therefore, Xuan fails to teach or suggest all the limitations of Claim 8.

In addition, Xuan is inapplicable as 102(e) prior art in view of Korean Application 2001-27677, filed May 21, 2001, from which the present application claims priority (a certified English translation of the foreign application will be provided in due course). The 102(e) date of the Xuan reference is April 2, 2002. The Effective Filing Date of the present application is the priority date of May 21, 2001, which antedates the 102(e) date of Xuan. Therefore, Xuan is inapplicable as 102(e) prior art. Thus, Xuan's teachings cannot support a prima facie case of obviousness.

In view of the above, Applicant's believe there is clear error in the rejection of Claim 8 in view of Xuan. Reconsideration of the rejection is respectfully requested.

Claims 8, 9, 11, and 13 have been rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admissions. The Examiner stated essentially that the applicant's admissions teach or suggest all the limitations of Claims 8, 9, 11, and 13.

Claim 8 claims "a first laser beam generating means that generates a first laser beam for breaking molecular bonds of the non-metallic substrate material so as to heat a cutting path formed on the non-metallic substrate and to form a scribe line having a crack to a desired depth."

Applicant's admissions teach "a cooling fluid beam 14 having a markedly lower temperature than the heating temperature of the glass motherboard 10 is applied onto the rapidly heated cutting path 12. Accordingly, while the glass motherboard 10 is rapidly cooled, a crack is generated on a surface of the motherboard 10 to a desired depth to generate a scribe line 15" (see page 5, lines 1-18).

Applicant's admissions do not teach or suggest "a first laser beam generating means that generates a first laser beam for breaking molecular bonds of the non-metallic substrate material so as to heat a cutting path formed on the non-metallic substrate and to form a scribe line having a crack to a desired depth" as claimed in Claim 8. Applicant's admissions teach a cooling fluid generates a crack on a surface of the motherboard (see page 5, lines 7-8). Nowhere does Applicant's admissions teach or suggest a laser for generating a scribe line having a crack, essentially as claimed in Claim 8, much less cutting a non-metallic substrate without a cooling device. Therefore, Applicant's admissions fail to teach or suggest all the limitations of Claim 8.

In view of the above, Applicant's believe there is clear error in the rejection of Claim 8 in view of Applicant's admissions. Reconsideration of the rejection is respectfully requested.

Claims 8, 12, and 13 have been rejected on the grounds of nonstatutory obvious-type

double patenting as being unpatentable over Claims 11 and 13 of Nam et al. (USPN 6,541,730)

in view of Stevens (USPN 5,622,540).

By the terminal disclaimer dated February 8, 2006, a terminal part of the statutory term of any patent granted on the instant application that would extend beyond the term of Nam has been

disclaimed. Therefore, Applicant's believe that the nonstatutory obvious-type double patenting

has been overcome.

For the forgoing reasons, the present application, including Claims 8-13, is believed to be

in condition for allowance. Early and favorable action is respectfully urged.

Respectfully submitted,

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